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## HORTICULTURAL TALKS.

Looking over the catalogs, many of which are inclined to be confusing to the majority who read them, one must use good judgment, and make a great many allowances. Don't jump at conclusions, don't get enthusiastic over something that you know nothing about excepting

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## PATENT GROOVED

## Tire Wheels

For Farm Wagons  
Any Size to fit any axle.  
MADE ONLY BY THE  
HAYANA METAL WHEEL CO.  
HAYANA, ILL.  
We are the largest manufac-  
turers of steel wheels and low  
down trucks in the U. S.  
\$27.00 Price per Wheel.

## Live Stock

## DATE CLAIMS FOR LIVE STOCK SALES.

January 23 to E. 1902—Sotham's annual Criterion Sale, at Kansas City.  
Jan. 14, 15 and 16—Cornish & Patten, Osborn, Mo., and others, at Kansas City, Mo. Hereford cattle.  
Feb. 4, 1902—Biltmore Farms (Biltmore, N. C.) Annual Brood Sow Sale.  
Feb. 11-13, 1902—Redhead Anist, Boyles and others, at South Omaha, Neb. Hereford cattle.  
March 4-7—L. M. Forbes & Son, Henry, Ill.; J. E. Prather, Williamsville, Ill.; S. E. Prather & Son, Springfield, Ill.; C. B. Dustin & Son, Summer Hill, Ill.; T. J. Wornall, Mersby, Mo., and others, at Chicago, Ill. Shorthorns.  
March 11—W. F. Nichols, West Liberty, Iowa, Shorthorns.  
June 18—C. E. McLane, Danville, Ind., at Indianapolis, Double Standard Polled Durhams.  
The "National Hereford Exchange" under management of T. F. B. Sotham, as follows:  
March 25-27, 1902—Chicago.  
April 25-27, 1902—Kansas City.  
May 27-29, 1902—Omaha.  
June 24-26, 1902—Chicago.

**ABERDEEN ANGUS CATTLE.**  
Feb. 4-6—Combination sale, W. C. McGavock, mgr., Chicago.  
Jan. 22—E. E. Axline, Oak Grove, Mo. Poland-Chinas.  
April 10-11—Combination sale, W. C. McGavock, mgr., Kansas City.  
June 10-11—Combination sale, W. C. McGavock, mgr., Chicago.

**NATIONAL SHORTHORN SHOWS AND SALES.**  
Feb. 12-14—Chicago, Ill., George Allen, Alton, Ill.  
March 11 and 12—At Trenton, Mo., combination sale, H. J. Hughes, secretary.  
March 19-21—At Kansas City; W. R. Nelson, Dispersion sale.  
March 28-30—At Kansas City; B. R. and H. T. Green, Pan-Handle, Texas.  
March 31-At Vandalia, Mo., Robinson Bros. & Wright.  
May 9-At Columbia, Mo., Boone County Shorthorn Breeders' Association.  
May 14-At Kansas City, Mo.; W. T. and H. R. Clay, Plattsburg, Mo.  
Feb. 4, 1902—Biltmore Farms, Biltmore, N. C.

Feb. 14, 1902—Combination sale Berkshire, Kansas City, Mo.; Charles F. Mills, Clerk, Springfield, Ill.  
Feb. 21, 1902—Combination sale Berkshire, Kansas City, Mo.; Charles F. Mills, Marshall, Mo.; J. T. Pollard, Fulton, Mo.; Harris & McMahon, LaMotte, Mo.; Charles F. Mills, Clerk, Springfield, Ill.  
Oct. 22, 1902—Geo. W. Jessup, Rockville, Ind.; Charles F. Mills, Clerk, Springfield, Ill.  
Dec. 3, 1902—Combination sale Berkshires, Manager A. J. Lovejoy, Roscoe, Ill.; Clerk, Charles F. Mills, Springfield, Ill.

## CATTLE DISTEMPER.

Within the past two years occasional reports have come to this department from different parts of the state of what appears to be a contagious disease of cattle that in a severe form resembles "lumpy jaw." During the past few months these reports have been more frequent. Investigation shows the disease to be entirely different from true "lumpy jaw." The most important differences to be noticed by an ordinary observer are as follows: In cattle distemper the swelling comes on suddenly and always in the region of the face or jaws, and the lump or tumor appears to have grown fast to the bone in most cases. Cattle distemper attacks young animals most frequently, but may attack cattle of any age. The first symptom of cattle distemper usually noticed is a swelling of the throat, especially the glands in this region. This swelling appears quite suddenly, often within twenty-four hours, and is usually severe. This is preceded by a slight discharge from the eyes and nose and is associated with a slight fever. The swelling of the animal's jaw two or three degrees. As the disease progresses the swellings increase in size and an abscess containing a rather thick, yellow pus or "matter" forms. Sometimes two or three of these abscesses will form about the throat, on the side of the head, or along the jaw. These swellings do not affect the bone, but occur in the loose tissue and glands. If left alone the abscesses break and discharge pus, but do not heal readily, often remaining open and running for some time.

Treatment.—The disease appears to be contagious, but so far experiments do not show in what way. It is not highly contagious. Affected animals should be isolated from the healthy and not allowed to eat or drink from a common receptacle. In the early stages if the swelling is thoroughly rubbed twice daily with a stimulating liniment it will usually "scatter" the swelling so no abscess will form. A liniment composed of equal parts of turpentine and kerosene oil is good. If two ounces of gum camphor is dissolved in half a pint of turpentine and an equal amount of kerosene added the liniment is improved. This should be rubbed on twice daily until the skin begins to get sore. After pus has formed the abscess should be opened freely, washed out with warm water and a strong solution of blue vitriol (sulphate of copper), a tablespoonful dissolved in one-half pint of water. This can be injected once daily for two or three days. Pure tincture of iodine is also good. In some cases putting a small lump of blue vitriol in the cavity works well. If the abscess is not opened early there is a tendency for other abscesses to form.

Nearly all cases recover in a few weeks. Where they do not, the cavity can be swabbed out with "butter of antimony" once, and then the blue vitriol solution used.

N. S. MAYO.  
Experiment Station, Manhattan, Kan.

Get run down, even if they do not die. Hood Farm Calf Scour Cure and Digestive Powder, used in connection, cures scour promptly; keep calves from drinking.  
\$1 and \$2.50. Sent to any railroad express point in U. S. 25c extra. C. I. Hood & Co., Lowell, Mass.

## CENTRAL SHORTHORN BREEDERS' ASSOCIATION.

Editor RURAL WORLD: Please announce that the fifth annual convention of the Central Shorthorn Breeders' Association will be held in Exchange Hall, Kansas City, Mo., Feb. 4 and 5, 1902. Program will be published next week. Secretary of Agriculture James Wilson, ex-Gov. D. R. Francis, Hon. F. D. Coburn, John W. Springer and others have been asked to attend this convention and deliver addresses.

Application has been made for reduced railroad fares and this will be announced in case the rate is granted.  
B. O. COWAN,  
Secretary Central Shorthorn Breeders' Association,  
Springfield, Ill.

## SUGAR BEETS FOR STOCK.

When the beets are ready for feeding I run a puller through the field, then put the beets into wagons and haul them to the feed lot, tops and all, writes James Scelley of Nebraska in the "Orange Judd." It may be necessary to cut them at first, and a corn knife can be used for the purpose. After the cattle get a little used to the beets they will eat them quite readily without cutting. I have been feeding beets to cattle and hogs for eight years, and also to horses. They seem to be very fond of them, and the horses are just as anxious to get their feed of beets as of grain. I do not think that any farmer can afford to get along without a root crop of this kind. Animals seem to do especially well and in a very short time a very fine glossy appearance will be noticed.

I have found beets a most excellent feed for thick winded horses, as it seems to result in much easier breathing. I raise about 45 or 50 tons of beets at very little expense, and find them the most profitable crop on the farm. In addition to using beets during the fall I plan to have a supply for brood sows during the later part of March and early April. They are invaluable at that time, when it becomes necessary to increase the flow of milk. This feed keeps both the sows and pigs in fine condition.

## STUDY THE FEEDING PROBLEM.

The farmer should in a general way acquaint himself, says "Wallace's Farmer," with the nutritive value of each class of food he has. He can in a like general way acquire a knowledge of the requirements of the different classes of animals. He can soon learn that oats is a balanced ration for dairy cows, growing pigs and horses at work. Taking this as a basis, he can without much difficulty learn how to balance his corn ration to give it the nutritive ratio of oats either by adding some kind of meal rich in flesh formers, or by adding clover and alfalfa hay as roughage, and thus produce a cheaper food and of greater variety, and therefore of greater value than if he fed them on oats alone. He can watch his animals closely and notice how they thrive on this or that particular feed or combination of feeds, and by adding to or taking from the present ration form for himself a balanced ration or system of rations that will more nearly bring the answer. It is a good thing that stock feeding is not an abstract science. If it were, farmers would not be required to observe, think, study, and experiment, and thus add to their own intellectual and moral stature. The experiment stations can help; the legislature, by requiring with every sale of commercial food stuffs an analysis, can help; the agricultural papers, by laying down general principles, such as we are trying to now, can help, but above all, the farmer must help himself by study in the lines above mentioned.

## CONFORMATION OF BEEF AND DAIRY CATTLE.

The selection of cattle best suited for their intended use is of great importance to feeders and dairymen; and it is even more important to breeders of either beef or dairy cattle. For the purpose of presenting a simple and practical way some information concerning the differences between good and inferior animals and the extent to which certain desirable qualities affect their value for beef and dairy utility, the United States Department of Agriculture has had prepared and will soon issue Farmers' Bulletin No. 148 entitled "Conformation of Beef and Dairy Cattle." It was prepared by Andrew M. Soule, Professor of Agriculture, and Vice Director of the Tennessee Agricultural Experiment Station. The author has endeavored to define as nearly as possible the ideals that should be kept in view in pursuing the business and to point out an accessible relation of these standards to the economic side of animal industries. By diagrams, descriptions, and suitable illustrations he has given the information necessary to enable the stock feeder, the breeder, the farmer, or the dairymen to become a competent judge of cattle by sight and touch.

Beef and dairy cattle are considered together because stronger contrasts can be drawn and differences can be shown more clearly.

The bulletin is for free distribution and will be sent to any address on application to the Director, Representatives and Delegates in Congress, or to the Secretary of Agriculture, Washington, D. C.

## CORN SMUT.

A. T. C. Polo, Ill., asks in "Breeders' Gazette" if corn smut is poisonous to cattle.

Gamgee, conducting experiments for the Department of Agriculture, Washington, years ago fed forty pounds of corn smut to two cows without ill effects. More recently the Department of Agriculture fed corn smut to hogs. Likewise without ill effects. At the Michigan Station Smith fed corn smut to four cows. The maximum daily allowance reached eleven pounds of smut per cow. When this allowance was reached one cow showed disposition for a time, but soon returned to normal health. At the Wisconsin Station the writer fed carefully cleaned smut to two cows. When the allowance reached 25 ounces per day one cow refused to eat more; the other cow continued to eat

more and more until she was consuming 54 ounces per day and was fattening rapidly upon the fair grain ration given. Then death suddenly ensued.

It is certain that under ordinary conditions smut is not injurious to cattle. It is possible that in certain years or with certain animals it may be poisonous, and that certain animals become abnormal in appetite and seek large quantities of smut in the stalk fields, and consuming this brings on trouble or death. More experiments are needed. W. A. HENRY.

## A HEREFORD BOOK.

Honorable F. D. Coburn, Secretary of the Kansas State Board of Agriculture, has just published in the name of the Board another one of his notable quarterly reports.

It is for the quarter ending December, 1901, and comprises two parts. Part I is devoted to Hereford cattle; part 2 to population, crop and live stock statistics. Cattle breeders, and particularly the Hereford men of Kansas, will doubtless feel under great obligation to Secretary Coburn for compiling and putting in such presentable form so much valuable Hereford information as is to be found in the two parts of Part I, comprising almost every phase of the subject that would interest Hereford breeders. Numerous pictures of noted and prize-winning animals of the breed make the Report very attractive. Our Kansas readers, and so far as they are available, those in other states who are interested in Hereford cattle, should get copies of this Report. Address Hon. F. D. Coburn, Topeka, Kan.

## FEEDING FALL CALVES.

This is a trying time for the fall-dropped calves on farms that have poor buildings. The young calves will not thrive on any feed if they are subjected to bad housing, with darkness, chill, dampness and drafts to weaken them. First of all, the fall calves should have comfortable quarters, with sunlight throughout the short days, with ventilation arranged to avoid drafts and with warmth enough to keep them from chilling in the coldest, windiest weather, says a correspondent in the "New York Farmer."

I place these things first, as they lead directly to the feeding. No kind or amount of feed will bring out fall calves that are badly housed in the winter.

The calves may receive skim milk throughout the winter. It must be given to them only while it is sweet, in order to insure good digestion, perfect assimilation and nourishment. As the skim milk contains little or no fat, that element may be put in the ration in the form of oilmeal. This gives the needed carbonaceous elements.

## WHEAT AS A FOOD FOR STEERS.

At the Ohio Experiment Station, a comparison was made of the feeding values of corn meal and wheat meal for beef production. The experiment was continued for two years. Wheat bran was used as a part of the ration. Equal parts of corn meal and wheat bran were mixed and then, after the animals became accustomed to the feed, oil-meal was added until it amounted to one-fourth of the entire grain ration. The coarse fodder consisted of clover hay and corn silage. To part of the ration wheat meal was substituted in the ration for corn meal. All other feeds remaining the same. It was found that 15 to 16 pounds per day of the corn meal mixture could be fed without experiencing difficulties.

The results of the first year's feeding are slightly in favor of the wheat meal. The second year corn meal appeared to produce somewhat better results. The results of the two years' trial are summarized in the following table:

	Daily gain in pounds	Daily feed in pounds	Cost of feed per cent of gain
1904—			
Corn meal.....2.07	10.81	7.75	
Wheat meal.....1.98	10.02	7.75	
1905—			
Corn meal.....3.02	9.90	7.61	
Wheat meal.....1.79	11.78	8.96	

At the time this experiment was performed, corn meal cost \$16 per ton, while the wheat meal cost \$20 per ton. The wheat bran, which formed a portion of each ration, cost \$16 per ton.

At the Pennsylvania Station no great difference was observed between the feeding value of wheat meal and the same weight of shelled corn. The corn-and-cob-meal gave slightly better results than the wheat.—Press Bulletin Minnesota Experiment Station.

## HEREFORD SALES AT CHICAGO.

Thomas Clark's Average Would Have Been Pretty Low Without Perfection.

The dispersion sale of Thomas Clark's Hereford herd at Chicago last week was a great event in cattle circles. Great interest centered in the sale of Perfection, the champion Hereford bull at the International at Chicago and the winner of the Armour trophy at the Kansas City American Royal at Kansas City in 1900. The first bid on Perfection was \$2,000, the last one was \$3,000, which was offered by Gilbert H. Hoxie, of Thornton, Ill. The active bidder against Mr. Hoxie was Thomas Mortimer, manager of the Marshall Field farm at Madison, Neb. After the sale Hoxie stated that he would have bid as high as \$12,000.

The average of the sale was \$486.51, but it would have been pretty low without the \$3,000 sale. The next highest price of the day was \$600.

Hardly had this greatest of Hereford bull sales of all the world been made until a new record was made by private sale of Dale at \$10,000.

It was erroneously reported that Lord Wilton had sold for \$20,000 in England. The man that made the bid was not in addition to be accountable and did not "make good." The bid being sold at \$2,000. This it will be seen that Dexter Park Amphitheater holds the world's record on Hereford bull prices.

Dale, the renowned Hereford bull, the animal to which all breeders of beef cattle have bowed, changed hands twice this week. Two years ago when he reached his prominence he became the property of Clem Graves of Bunker Hill, Ind., and since that time has been at the head of Mr. Graves' herd. While en route to the Clark sale, Mr. Graves accepted the offer of the Wabash Cattle Co., of Wabash, Ind., of \$2,000. Immediately after the sale of Clark's bull, Perfection, yesterday for \$3,000, Dale was sold to Jesse Adams of

## SOTHAM'S

## KANSAS CITY CRITERION SALE

## OF

## HEREFORDS

## WILL BE HELD IN THE

## KANSAS CITY, MO., FINE STOCK PAVILION

## JANUARY 28, 29, 30, 1902

## (Tuesday's Sale to commence at 1 p. m., Wednesday and Thursday's sale commencing at 10 a. m.)

I am instructed by the following contributors to announce the greatest public offering of Herefords ever put before the American public. As a guarantee of the surpassing excellence of this offering, I have only to announce that selected animals of the best character representing the greater English and American herds will be contributed by the following breeders:

D. W. BLACK, Lyndon, Ohio.  
JESSE C. ADAMS, Moweaqua, Ill.  
F. A. NAVE, Attica, Ind.  
MAKIN BROTHERS, Lee's Summit, Mo.  
C. B. SMITH, Fayette, Mo.  
S. H. GODMAN, Wabash, Ind.  
GEO. P. HENRY, JOHN LETHAM, Goodenow, Ill.

CLEM GRAVES, Bunker Hill, Ind.  
EGGER HEREFORD CATTLE CO., Appleton City, Mo.  
JAMES PAUL, Patch Grove, Wis.  
T. H. CARROTHERS, Ryan, Ia.  
B. E. KEYS, Mellott, Ind.  
GEO. H. ADAMS, GEO. F. MORGAN, Linwood, Kan.  
T. F. B. SOTHAM, Chillicothe, Mo.

Each contributor a recognized leader in his own district, and almost without exception every contributor has earned world-wide reputation for great good intelligently done to American agriculture through specially celebrated achievements with Hereford cattle. Wherever Herefords are known these names are respected and any transaction backed by any one of these names is guarantee absolute of its genuineness and honesty. An event therefore like the Criterion—participated in, heartily, by all, must therefore have an international or world-wide character. As the "century opener" was the Hereford event of 1901, so the Criterion will be the Hereford event of 1902.

Special evening entertainments apropos to the occasion will be provided; reasonable, new, instructive and enjoyable features for all who attend. Come and participate, enjoy and learn about the Hereford, whether you desire to buy or not. Catalogues ready on New Year's day. Wishing all lovers of pure-bred live stock a happy Christmas and prosperous New Year,

YOURS FAITHFULLY, T. F. B. SOTHAM, Chillicothe, Mo.

On and after Jan. 1, 1902, copies of my Treatise and Hand-book on Herefords will be priced 50c. for paper covers and \$1 for Morocco binding. The edition of 10,000 being about exhausted prohibits further free copies after that date. Catalogues and other literature free as usual.

MAKE YOUR ARRANGEMENTS TO ATTEND THE MARKER OF THE HEREFORD YEAR.

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## 35 Gal. Only \$8.

The biggest food color bargain you ever saw considering the high quality of the product. **Leader Stock Food Color Watercolor.** Contains 35 gallons of purest food color in one barrel. It is the only food color that can be used in all cases. It is the only food color that can be used in all cases. It is the only food color that can be used in all cases.

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Good young bulls for sale. Carlinville, Ill.

Berkshire, Lags, Cotswold and Shropshire Sheep. Bulls ready for service. Some choice boars and 15 bucks for sale at reasonable prices. The pure Scotch bulle Violets Prince 145,647 and Golden Sympathy 151,656 in service.



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